

# Central & Inscribed Angles Practice for Quiz

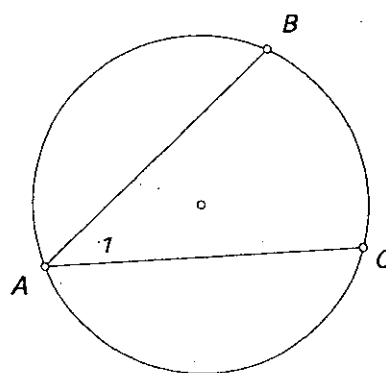
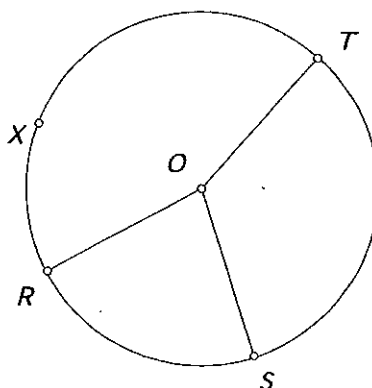
Given:  $\odot O$ ;  $\widehat{ST} = 120^\circ$ ;  $\widehat{RS} = 80^\circ$

Find:

1)  $\angle ROS =$  \_\_\_\_\_ 2)  $\angle TOS =$  \_\_\_\_\_

3)  $\angle ROT =$  \_\_\_\_\_ 4)  $\widehat{RST} =$  \_\_\_\_\_

5)  $\widehat{RT} =$  \_\_\_\_\_ 6)  $\widehat{RSX} =$  \_\_\_\_\_

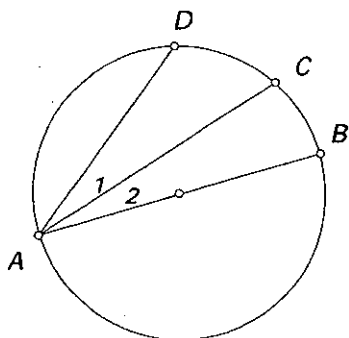


7)  $\widehat{BC} = 70^\circ$ ,  $\angle 1 =$  \_\_\_\_\_

8)  $\widehat{BC} = d^\circ$ ,  $\angle 1 =$  \_\_\_\_\_

9)  $\angle 1 = 39^\circ$ ,  $\widehat{BC} =$  \_\_\_\_\_

Given:  $\overline{AB}$  is a diameter

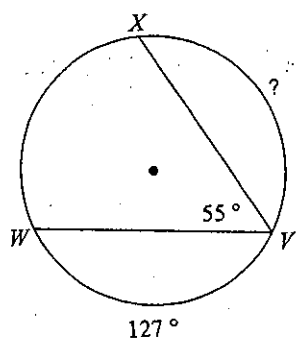
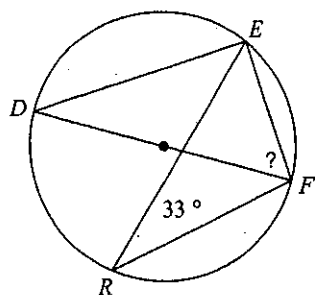


1)  $\angle 2 = 16^\circ$ ,  $\widehat{BD} = 85^\circ$ ,  $\angle 1 =$  \_\_\_\_\_

2)  $\angle BAD = 58^\circ$ ,  $\widehat{BC} = 40^\circ$ ,  $\angle 1 =$  \_\_\_\_\_

Find the measure of the arc or angle indicated.

1)



Given:  $\odot O$ , diameter  $\overline{AC}$ , tangent  $\overleftrightarrow{AD}$   
and  $\widehat{BC} = 42^\circ$

Find: All the numbered angles.

$\angle 1 = \underline{\hspace{2cm}}$

$\angle 2 = \underline{\hspace{2cm}}$

$\angle 3 = \underline{\hspace{2cm}}$

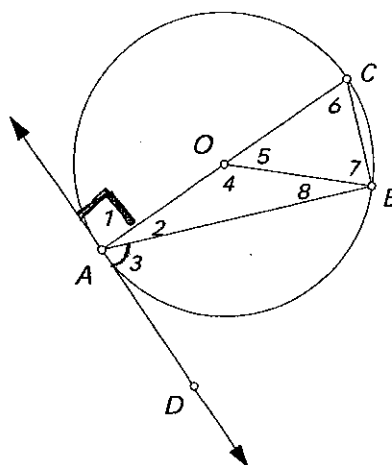
$\angle 4 = \underline{\hspace{2cm}}$

$\angle 5 = \underline{\hspace{2cm}}$

$\angle 6 = \underline{\hspace{2cm}}$

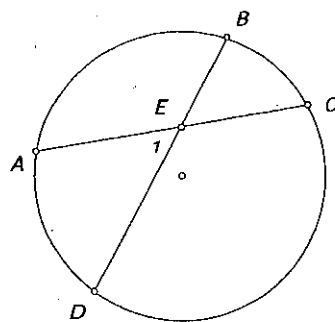
$\angle 7 = \underline{\hspace{2cm}}$

$\angle 8 = \underline{\hspace{2cm}}$



$$\widehat{BC} = 37^\circ, \widehat{AD} = 64^\circ, \angle 1 = \underline{\hspace{2cm}}$$

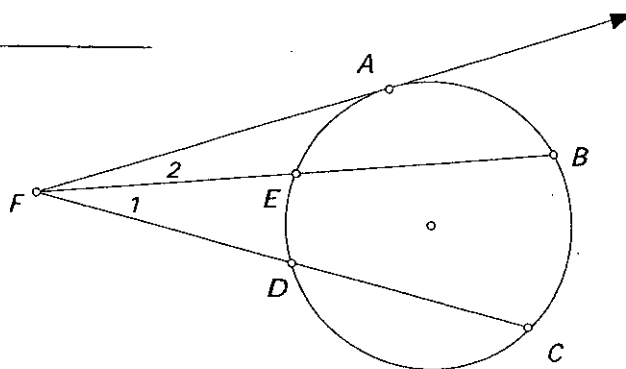
$$\angle 1 = 42^\circ, \widehat{AD} = 67^\circ, \widehat{BC} = \underline{\hspace{2cm}}$$



$$\widehat{BC} = 150^\circ, \widehat{ED} = 52^\circ; \angle 1 = \underline{\hspace{2cm}}$$

$$\angle 2 = \underline{\hspace{2cm}}$$

$$\angle 1 = 42^\circ, \widehat{ED} = 67^\circ; \widehat{BC} = \underline{\hspace{2cm}}$$

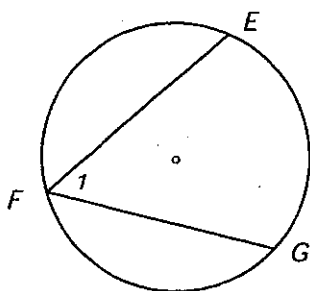
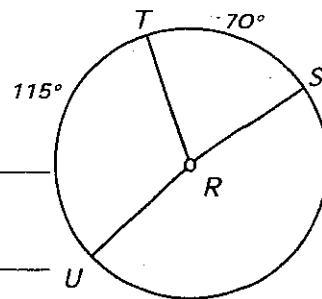


Given:  $\odot R$ ; Given:  $\odot R$ ;  $\widehat{TS} = 70^\circ$ ;  $\widehat{TU} = 115^\circ$

Find the measures:

1)  $\angle TRU =$  \_\_\_\_\_ 2)  $\angle SRU =$  \_\_\_\_\_

3)  $\widehat{SUT} =$  \_\_\_\_\_ 4)  $\widehat{STU} =$  \_\_\_\_\_



5)  $\widehat{GFE} = 250^\circ$ ,  $\angle 1 =$  \_\_\_\_\_

6)  $\angle 1 = (3x + 21)^\circ$ ,  $\widehat{EG} = (10x - 10)^\circ$ ,  $\angle 1 =$  \_\_\_\_\_

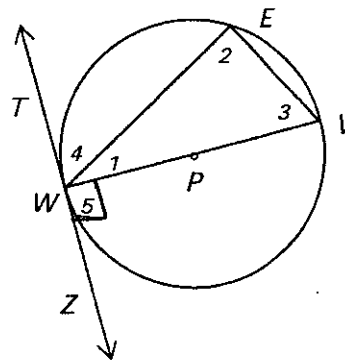
7) Given:  $\odot P$ , diameter  $\overline{WV}$ , tangent  $\overleftrightarrow{TW}$  and  $\widehat{WE} = 140^\circ$

Find: All the numbered angles.

$\angle 1 =$  \_\_\_\_\_  $\angle 2 =$  \_\_\_\_\_

$\angle 3 =$  \_\_\_\_\_  $\angle 4 =$  \_\_\_\_\_

$\angle 5 =$  \_\_\_\_\_



Given:  $\odot O$ ; diameter  $\overline{AB}$ ; tangent  $\overleftrightarrow{ZY}$   
 $\widehat{BY} = 42^\circ$ ,  $\widehat{BX} = 92^\circ$

Find: All the numbered angles.

$\angle 1 = \underline{\hspace{2cm}}$        $\angle 2 = \underline{\hspace{2cm}}$

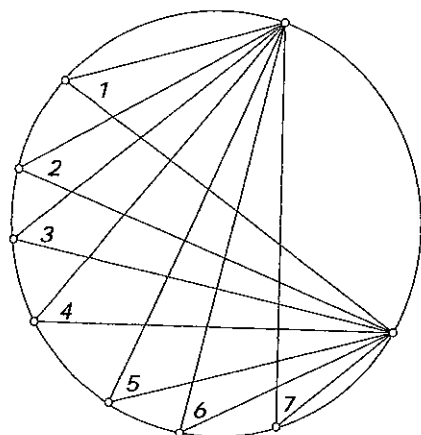
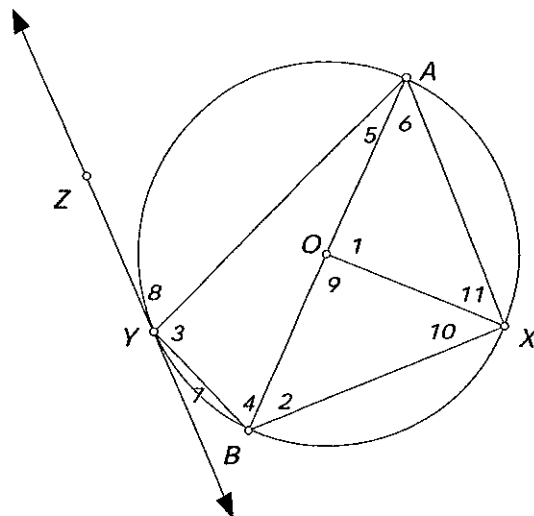
$\angle 3 = \underline{\hspace{2cm}}$        $\angle 4 = \underline{\hspace{2cm}}$

$\angle 5 = \underline{\hspace{2cm}}$        $\angle 6 = \underline{\hspace{2cm}}$

$\angle 7 = \underline{\hspace{2cm}}$        $\angle 8 = \underline{\hspace{2cm}}$

$\angle 9 = \underline{\hspace{2cm}}$        $\angle 10 = \underline{\hspace{2cm}}$

$\angle 11 = \underline{\hspace{2cm}}$



What is true about all the numbered angles in the illustration at the left?

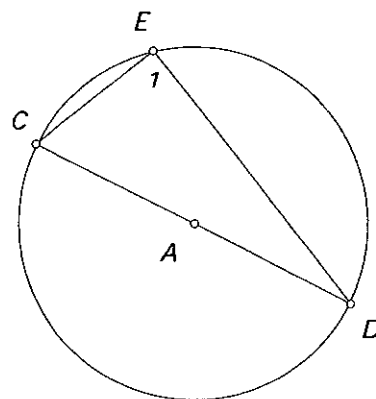
If A is the center of the circle and  $\overline{CD}$  is a diameter then

$\angle 1$  must be equal to  $\underline{\hspace{2cm}}$

Any angle inscribed in a semi circle must

be a  $\underline{\hspace{2cm}}$

If  $CE = 5\text{in.}$  and  $ED = 12\text{in.}$  what is the radius of  $\odot A$ ?



Name \_\_\_\_\_ Date \_\_\_\_\_

## Riding a Ferris Wheel Introduction to Circles

### Vocabulary

Write the term from the box that best completes each statement.

circle	diameter	point of tangency	arc	center
secant	central angle	minor arc	radius	tangent
inscribed angle	major arc	chord	semicircle	

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- The \_\_\_\_\_ is the distance from the center of a circle to a point on the circle.
- A(n) \_\_\_\_\_ is the set of all points in a plane that are the same distance from a given point, called the center of the circle.
- A(n) \_\_\_\_\_ is an arc whose endpoints form the endpoints of a diameter of the circle.
- The distance across a circle through the center is the \_\_\_\_\_ of the circle.
- A(n) \_\_\_\_\_ of a circle is an angle whose sides are radii.
- A(n) \_\_\_\_\_ is an unbroken portion of a circle that lies between two points on the circle.
- A(n) \_\_\_\_\_ is a segment whose endpoints are points on a circle.
- Two points on a circle determine a major arc and a minor arc; the \_\_\_\_\_ is the arc with the greater measure.
- A(n) \_\_\_\_\_ of a circle is a line that intersects the circle in exactly one point.
- A(n) angle whose vertex is on a circle and whose sides contain chords of the circle is an \_\_\_\_\_.
- A line that intersects a circle at two points is a(n) \_\_\_\_\_ of the circle.
- The \_\_\_\_\_ is the point at which a tangent intersects a circle.
- The \_\_\_\_\_ of a circle is a fixed point in space that is an equal distance from every point on the circle.
- Two points on a circle determine a minor arc and a major arc; the \_\_\_\_\_ is the arc with the lesser measure.